



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office

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SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
07/020,478	03/02/87	NILSEN	

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EXAMINER NICKERSON	
ART. UNIT 200	PAPER NUMBER 2

DATE MAILED: 07/23/87

This is a communication from the examiner in charge of your application.

COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☐ Responsive to communication filed on \_\_\_\_\_ ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), \_\_\_\_\_ days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- |   |   |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input type="checkbox"/> Notice re Patent Drawing, PTO-948.                  |
| 3. <input type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449                  | 4. <input type="checkbox"/> Notice of informal Patent Application, Form PTO-152 |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474      | 6. <input type="checkbox"/> _____   |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-8 are pending in the application.  
Of the above, claims \_\_\_\_\_ are withdrawn from consideration.
2. ☐ Claims \_\_\_\_\_ have been cancelled.
3. ☐ Claims \_\_\_\_\_ are allowed.
4. ☒ Claims 1-8 are rejected.
5. ☐ Claims \_\_\_\_\_ are objected to.
6. ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings which are acceptable for examination purposes until such time as allowable subject matter is indicated.
8. ☐ Allowable subject matter having been indicated, formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on \_\_\_\_\_. These drawings are ☐ acceptable; ☐ not acceptable (see explanation).
10. ☐ The ☐ proposed drawing correction and/or the ☐ proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_, has (have) been ☐ approved by the examiner. ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed \_\_\_\_\_, has been ☐ approved. ☐ disapproved (see explanation). However, the Patent and Trademark Office no longer makes drawing changes. It is now applicant's responsibility to ensure that the drawings are corrected. Corrections MUST be effected in accordance with the instructions set forth on the attached letter "INFORMATION ON HOW TO EFFECT DRAWING CHANGES", PTO-1474.
12. ☐ Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received  
☐ been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

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1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification is objected to under 35 U.S.C. 112, first paragraph, as failing to provide an adequate written description of the invention.

2. On page 3 of the specification, the applicant attempts to describe the operation of the circuit by using figure 2. The operation as described defies the laws of electricity.

3. Current will not flow where there is no potential difference. The statement, "current flows from B+ bus 38 through windings 46 and 48 and inductor 51 to charge capacitor 52 and returns to the B+ bus through capacitor 34," is erroneous. There is no potential difference along this path. Also, capacitor 34, as shown in figure 2, has characteristics that would also prevent this operation.

4. The statement, "since the current flowing through inductor 51 cannot change instantaneously, this current will now continue to flow from B- bus 39 through capacitor 68," is misleading. Positive current does not flow from a negative source using conventional accepted rules. The positive current and negative voltage infers

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a negative resistance or an active element. None are shown in the figure.

5. Claims 1-8 are rejected under 35 U.S.C. 112, first paragraph, for the reasons set forth in the above objection to the specification.

6. Claim 5 is rejected under 35 U.S.C. 112, fourth paragraph, as being of improper dependent form for failing to further limit the subject matter of a previous claim.

7. Claim 3 already states the parallel connection.

8. The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless-

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the

requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

10. Claims 1-8 are rejected under 35 U.S.C. 103 as being unpatentable over Skwirut et al in view of Anderson '751.

11. Skwirut et al teach a fluorescent lamp assembly comprising a fluorescent lamp, 14; a base which can be screwed into an Edison-type socket and contain the starting and ballasting components, column 3, lines 14-18; an L-C circuit with the capacitor in parallel to the lamp and in series with the inductor, the capacitor being integral with the lamp, so that, upon the removal of the lamp, the capacitor is also removed; and the L-C circuit operating near resonance of the fundamental frequency of the AC power source.

12. The difference between the claimed subject matter and the teachings of Skwirut et al is the operating frequency and means for obtaining that operation. As has been well known in the art, a fluorescent lamp may either operate at 60Hz or a high frequency depending on the choice of the designer. Skwirut et al operate at 60Hz, the claimed subject matter operates at a high frequency. It is also noted that the teachings mention the use of high frequency for operating a fluorescent lamp. The difference is provided for by Anderson '751.

13. Anderson '751 teaches a high frequency circuit for starting and ballasting a fluorescent lamp comprising a rectifier, a high frequency converter, an L-C tank circuit at or near resonance with the capacitor in parallel

to the lamp, and the converter being a half bridge inverter.

14. The motivation in the combination of the two teachings lies in Skwirut et al with the teaching of the starting and ballasting means in the base, and the suggesting of the use of high frequency for operating a fluorescent lamp.

15. It would have been obvious to one of ordinary skill in the fluorescent lamp to include the high frequency means of Anderson '751 in the base of Skwirut et al as a power supply means because Skwirut et al teach the use of the power supply in the base and suggest the use of high frequency for operating the fluorescent lamp.

16. Claim 6 is rejected under 35 U.S.C. 102(e) as being anticipated by Skwirut et al.

17. Skwirut et al teach a power supply in an arrangement comprising an AC output voltage being provided whenever the powerline voltage of an utility is present; with a series combination of a choke and condensor, (an inductor and a capacitor), across the output of the power supply, being in series resonance at or near fundamental frequency; a gas discharge lamp whose terminals are in parallel to the condensor; a base for adaptation to an Edison-type socket such that all the above are held together to form an integral unit.

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

19. Nilssen '345, Burke, Pitel '711, Pitel '476, Capewell et al, Knoll '009, Knoll '710, Nilssen '758,

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Nilssen '364, Abadie, Cox, Davies, Knoll '156, Miller, Kamei et al, Knoll et al, Anderson '120, and Nilssen '562 all show high frequency operations for fluorescent lamps and/or Edison-type units for connections.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Nickerson whose telephone number is (703) 557-6838.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 557-3321.



DAVID K. MOORE  
SUPERVISORY PATENT EXAMINER  
GROUP 260



M. Nickerson:pdw

703-557-6838

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